As The Nation's Rail Hub, Chicago Is An Expensive And Dangerous Bottleneck

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One of the daily nuisances caused by the tangle of the Chicago area's nearly 4,000 miles of rail track can be seen at the 71st Street grade crossing just east of Western Avenue. Motorists are routinely stuck for 15 to 20 minutes behind a gate, which is down an average of two hours a day.

"It gets pretty crowded," said Vernon Wiltz, an aide to Ald. Derrick Curtis (18th). "We get complaints about traffic, and the train horns are horrendous at 3 or 4 in the morning."

But however bad it is for motorists, think of it from the freight train's point of view. Thomas the Tank Engine and his cousins must crawl for hours at a time navigating an eight mile stretch of South Side track where four freight and two passenger lines converge to create one of the worst rail choke points in the nation.



The so-called 75th Street corridor, which despite its name actually meanders from Evergreen Park to the Dan Ryan Expressway, is a prime reason why experts say a coast-to-coast freight train can spend one-third of its trip simply trying to pass through Chicago area bottlenecks. They pose deadly safety hazards and add immense expense to the

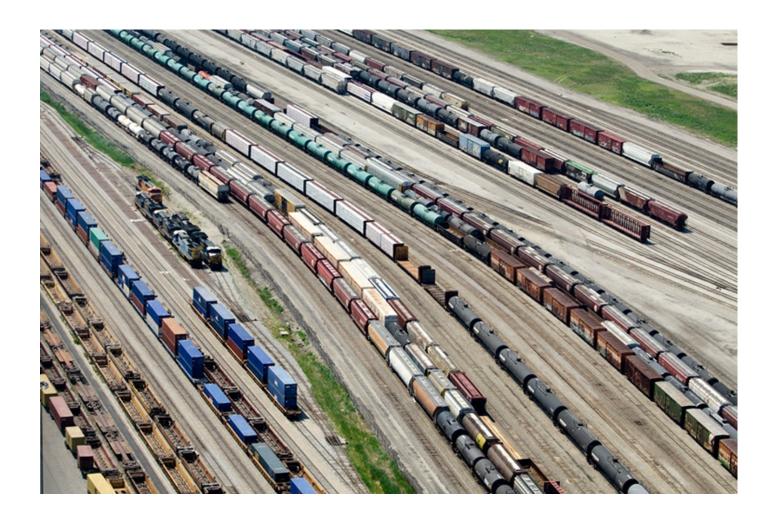
cost of shipping goods by rail.

As President Trump beats the drum for a \$1 trillion national public works program reminiscent of the New Deal, the Chicago area offers a long list of critical infrastructure suffering from deferred maintenance and in dire need of an upgrade. Rail, central to Chicago's growth from prairie backwater to metropolitan crossroads, tops the list.

The economic peril of inaction is palpable. A 2015 Amtrak study concluded that over a trillion dollars of rail freight transit through the Chicago on rail per year, and executives of major carriers frustrated by delays are becoming more vocal about the possibility of shifting traffic—and by extensions spending and investment—away from the area.

Indeed, Keith Creel, the CEO of Canadian Pacific told investors in May that his line was in talks with Jacksonville Fla.-based CSX to form a joint marketing and operating agreement to avoid Chicago switching yards and bypass chokepoints.

The partnership could find other ways to avoid Chicago. CP, for example, could bring intermodal traffic into Vancouver and hand it off to CSX on the east side of the Great Lakes, said Keith Schoonmaker, director for industrials equity research at Morningstar, Inc. "You're a fool to drive into a traffic jam," Schoonmaker said.



The Belt Railway of Chicago, whose switching yard is pictured, is one railway impacted by the bottlenecks of the 75th Street corridor. (iStock)

Another alternative: Shippers could circumvent the city by using the widened Panama Canal—East Coast cities are dredging their ports to accommodate larger container ships that can pass through the widened waterway, said Joseph C. Szabo, executive director of the Chicago Metropolitan Agency for Planning who headed the Federal

Railroad Administration under former President Barack Obama.

Four Atlantic ports already can accommodate larger containerships: New York/New Jersey, Baltimore, Hampton Roads, Va., and Port Everglades, Fla., according to Shyam Raman, program manager at consultancy Frost & Sullivan, which analyzed the Chicago rail congestion problem for Amtrak.

These threats are real, Szabo said. "We put at risk losing our dominance if we don't take decisive action." Freight volumes are growing, he added, due to growth in population, consumption and the explosion of e-commerce, so it's possible the region could tread water but still lose market share.

About 25 percent of all U.S. freight trains, and half of all intermodal trains that ferry shipping containers and trailer trucks, pass through the Chicago area, according to CMAP. Each day, tracks in the region bristle with 1,300 trains carrying freight and passengers.

But tracks, bridges, switches and signals largely laid out more than a century ago have resulted in a jumble that grinds away at efficiency. It often takes 26 to 30 hours for a freight train to pass through the area, a considerable time suck out of the typical three to five days it takes to move freight from West Coast ports to the Eastern seaboard.

The nuisance factor also plays a big role in an outsized number of collisions at railroad crossings—whether from motorists driving around closed gates or abandoned cars on the tracks.

Between 2011 and 2016, there were 293 collisions in Cook County and 740 statewide, according to the railroad administration. In Cook County, those accidents resulted in 48 deaths and 135 injuries. For all of Illinois in the same period, collisions led to 146 deaths and 350 injuries.

Delays still at "unacceptable levels"

The Chicago hub developed not as an integrated system but as a patchwork of some 30 freight railroads, most of which have been merged and consolidated into six major and two short-line railroads operating in the region. When service melted down in the late 1990s, the private railroads and a group of government agencies in 2003 formed CREATE, a consortium to upgrade tracks, switches and signal systems, and also add rail or roadway grade separations.

CREATE partners have raised \$1.4 billion of which \$1 billion has been used to complete 28 of 70 projects and implement design and construction work on another 23. For example, a \$142 million flyover railroad bridge in the Englewood neighborhood completed in 2014 eliminated a bottleneck by replacing a crossing between Metra Rock Island passenger tracks and Norfolk Southern freight tracks at 63rd and State Streets.

Despite these improvements, "delays and inefficiencies are still at unacceptable levels, resulting in recurring and increasingly severe crises that paralyze rail service throughout the United States," the 2015 Amtrak report said. CREATE still requires an estimated \$3 billion to finish the projects.

The 26 to 30 hours it takes for freight train to pass through the Chicago area is actually an improvement from 48 hours in the early 2000s, according to William C. Thompson, chief engineer for the CREATE program. The anticipated doubling of tonnages by 2045 places urgency on the remaining menu of CREATE projects.

Most critical are the improvements needed along the 75th Street Corridor. At one point called Belt Junction, after the Belt Railway line, 90 freight trains each day slow to a crawl because it is where eight tracks from the east and five from the west gradually narrow to two.

Four CREATE projects would go far to alleviate the congestion, according to Thompson. The consortium proposes four more tracks at Belt Junction, "like adding lanes on an Interstate," he said.

Two miles to the west, the partners plan a railroad flyover bridge 23 feet in the air at Forest Hill Junction south of the troublesome 71st Street grade crossing. That is where CSX freight trains currently are forced to wait for Metra passenger trains to pass. Further to the east, another planned railroad flyover would connect Metra's SouthWest Service from Will County to its Rock Island Line, which begins in Joliet.

Modernizing Union Station

That bridge is a key to solving other gridlock problems in the region by redirecting SouthWest Service passengers who arrive at Union Station to the less congested LaSalle Street Station across the Chicago River that serves Rock Island Line passengers.

Amtrak, which owns Union Station, aims to modernize the century-old terminal now operating at capacity as host to both Metra commuter trains and longer haul passenger service.

"The platforms are too small and the lower level is congested," said Audrey Wennink, director and transportation specialist at the Metropolitan Planning Council. "There aren't enough entrances. The flow is poor. There's a crush of people."



Amtrak aims to modernize the century-old Union Station, beleaguered by passenger congestion. (iStock)

Amtrak in May tapped Chicago real estate firm Riverside Investment & Development Co. as the master developer for commercial elements of the station and neighboring Amtrak-owned properties. The project would add retail, office space and parking over six years, thereby generating income to fund station renovation.

Redirecting Metra passengers away from Union Station will relieve the rush-hour crush, make it easier to begin upgrades and ultimately expand service, said Amtrak spokesman Marc Magliari.

Amtrak wants to improve the station's ventilation, renovate concourses and widen platforms to improve efficiency. "It takes time to unload 400 to 500 people on a commuter train from Naperville," Magliari said. "With a wider platform, you can move trains in and out more quickly, so you can increase capacity without adding tracks."

Union Station's modernization is critical to the city's vitality, including the fast-growing West Loop, said Howard Learner, executive director of the Environmental Law & Policy Center and a member of Amtrak's Blue Ribbon Panel created in 2014 to study the infrastructure problems impacting passenger and freight operations.

The station "needs to work better as a Midwest rail hub," he said. Some of the challenges fall to the city—there is no easy connection to the CTA, for example. And the city also needs to repair and widen Canal Street, which is built over railroad tracks. The narrow lanes make it awkward to drop off and pick up passengers.

In search of funds

The estimated price tag for the entire rail wish list is in the billions of dollars—funds hard to come by even in times when money wasn't so tight and government decision-makers were more collegial.

Cost estimates for the Union Station modernization range up to \$1 billion for platform, concourse and ventilation upgrades as well as city-funded improvements adjacent to the station.

There is no funding at present for improvements to the 75th Street Corridor. However, CREATE and the Illinois Department of Transportation in December applied for a \$160 million federal grant, which combined with pledges from city, state and railroads, would bank almost \$475 million of the \$950 million cost of corridor fixes. "We still must raise funds for the other half," Thompson said.

Some critics, such as Learner of the Environmental Law and Policy Center, argue that freight carriers should pick up a significant share of costs because an outsize share of benefits from any improvements accrue to those lines and their customers. A spokeswoman for the Association of American Railroads in Washington said the private railroads are committed to CREATE, adding that in addition to what the companies contributed to that effort they spent an additional \$5 billion on Chicago region capital expenditures over the past decade.

There's no shortage of thoughtful engineering proposals to alleviate the rail congestion but getting them funded promises to be a years-long slog.

Szabo of CMAP suggests public referendums on tax increases as long as they are "sold and delivered in a transparent way." Solving the rail congestion problem is critical to the quality of life and prosperity in the region, he said: "We cannot lose the economic vibrancy that has come from our dominance as the freight hub of North America."